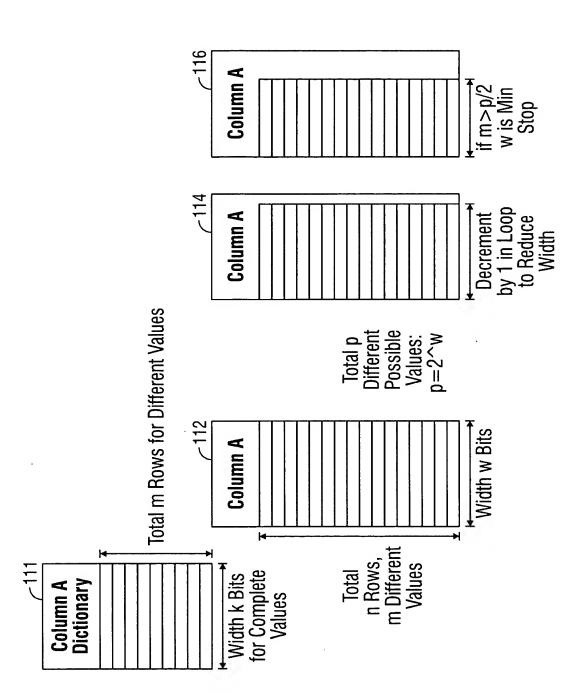


FIG. 1A

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USING COLUMN CARDINALITY INFORMATION

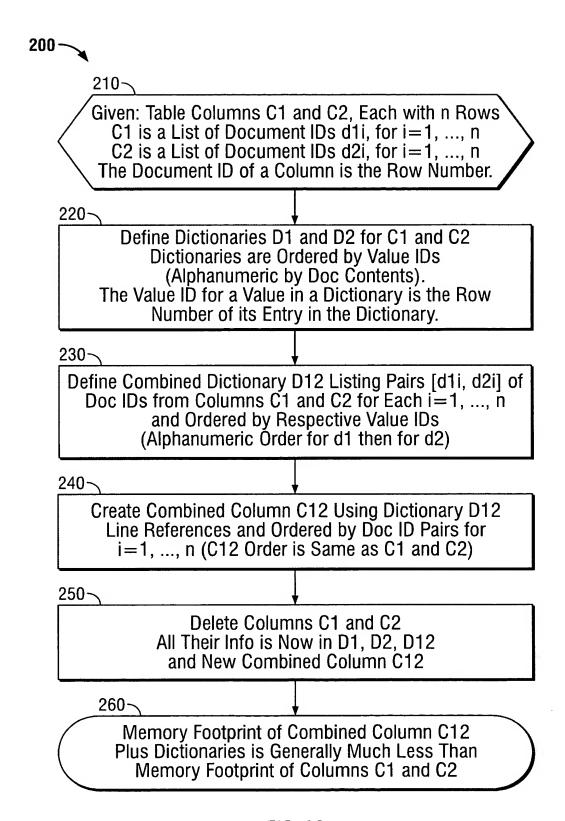


FIG. 2A

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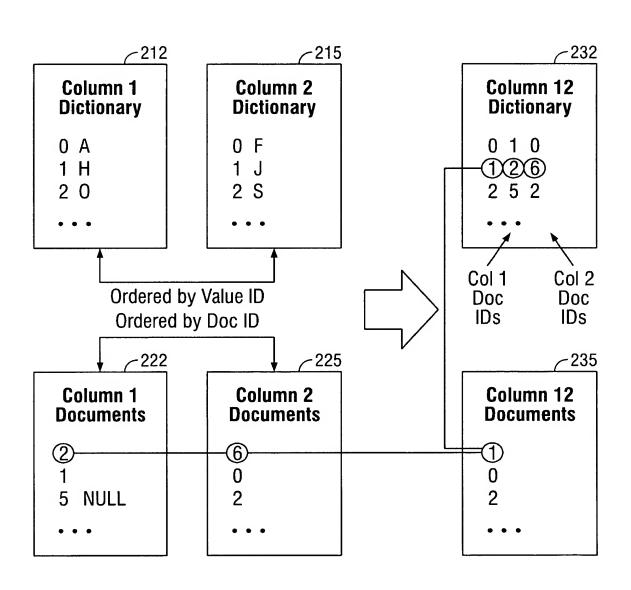


FIG. 2B

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, i.e. i.e. i.e. i.e. i.e. i.e. i.e. i.e	IDEE MEMORIA
USING COLUMN CARDINALITY I	INFORMATION

335Memory Required (Bits)ColumnDiction340Original 2n * w2m1 * m2 *345Combined 12 (Worst Case)n * (w1 + w2)m1 * m2 * (w1 + w2)350Combined 12 (Best Case)n * wmmm * (w1	- 1	(010	0.20	
Original 1	·		Column	Dictionary
Combined 12 (Worst Case)  Combined 12 (Worst Case)  Combined 12 (Best Case)  n * wm	7	Original 1	n * w1	m1 * K1
Combined 12 (Worst Case) n * (w1 + w2) Combined 12 (Best Case) n * wm	7	Original 2	n * w2	m2 * k2
Combined 12 (Best Case) n * wm	7	Combined 12 (Worst Case)	n * (w1 + w2)	m1 * m2 * (w1 + w2)
	7	1	u * wm	mm * (w1 + w2)

Key	Number of Rows in Original Columns (and in Original Table)	Width of Column j in Bits (Minimized as in Method 100, Fig. 1A)	Cardinality of Column j (i.e., Number of Different Values in Column j)	Width of Widest Value in Column j in Bits (Typically, kj>wj)	Maximum of m1 and m2 (i.e., Larger of the Two Values)	Maximum of w1 and w2 (i.e., Larger of the Two Values)	
	<u> </u>	W	Ē	.조.	mm	MM .	